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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,337

12/12/2003

Richard Haas

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3784

7590

03/04/2005

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EXAMINER

RILEY, SHAWN

ART UNIT

PAPER NUMBER

2838

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/735,337	<b>Applicant(s)</b> HAAS, RICHARD	
	<b>Examiner</b> Shawn Riley	<b>Art Unit</b> 2838	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on dec 03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. Applicant(s) is(are) reminded of the proper content of an abstract of the disclosure.

The abstract should not refer to purported merits (**this control offers excellent performance characteristics and requires only a few components for a useful implementation**) or speculative applications of the invention and should not compare the invention with the prior art (**which is simpler to implement than conventional circuit and offers a wider dynamic operating range**).

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. E.g., “power factor controlled regulator with variable output voltage feedback”

***Claim Rejections - 35 U.S.C. § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. §102(b) as being fully anticipated by Heng (U.S. Patent 5,495,164). Heng shows,<sup>1</sup> (in, e.g., the(ir) figure 1 and corresponding disclosure)

As to claim 1;

A variable amplitude voltage regulator for use in a power factor correction (see e.g., column 1 lines 6-10 and column 1 lines 50-55) system including in combination: a resistor scaling network (28/29/30) consisting of at least one variable resistor (29); a source of rectified alternating current (I<sub>in</sub> which flows through 8 to 28) input voltage (ACR) (V<sub>in</sub> after being rectified by 2) coupled to the resistor scaling network (through 23 and 8); a voltage error differential amplifier (32) coupled to the ACR (through node between 29 and 28) and to a reference signal (unmarked voltage into + node of 32) to produce a voltage error signal (VES) (output of 32); a digital signal processing (DSP) circuit (control

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<sup>1</sup> Note claims will be addressed individually and the material in parentheses are the examiner's annotated comments. Further unless needed for clarity reasons, recited limitation(s), will be annotated only upon their first occurrence. Annotated claims begin with the phrase "As to claim". Claims that are not annotated are seen as having already had the invention(s) addressed previously in an annotated claim. Bolded words/phrases indicate rejected material based 112 paragraph rejections. Underlined words/phrases indicate objected to material.

circuits are DSP especially switching signal controllers such as the instant boost circuit); means coupling the VES to the DSP to produce an output signal at a predetermined frequency with an adjustable duty ratio (DR) (the duty cycle of the regulator is adjusted via the output of 32); means coupling the ACR and the output signal from the DSP to the resistor scaling network (acr is coupled to the scaling network via 6/23/8 and output signal from the DSP is coupled to the resistor scaling network via, e.g., 7/22/23/8) to produce a demand level control signal which varies as a function of the VES dc level (as VES, the output signal of 32 changes it affects the controllers output to thereby function as vis a vis the VES dc level).

***Allowable Subject Matter***

3. Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is an examiner's statement of reasons for allowance: No prior art uncovered anticipates or renders obvious applicant(s) claimed circuitry including having predetermined frequency of the output signal of the DSP is a fixed frequency above the audible range and the transistor is switched fully on and off in a ratio determined by the adjustable duty ratio (DR) of the output of the DSP. Further, no prior art uncovered anticipates or renders obvious applicant(s) claimed circuitry including having the demand level control signal (DLS) defined by the following equation:  $DLS = [(R1)/(R1+R2)].times.(1-DR).times.ACR$  where R1 is

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the resistance of the transistor and R2 is the resistance of the resistor connected in parallel with the collector emitter path of the transistor. Further, no prior art uncovered anticipates or renders obvious applicant(s) claimed circuitry including having a variable resistance comprises at least one bi-polar transistor having a base, an emitter, and a collector, the collector emitter path of which is connected in parallel with a fixed resistance with the collector emitter path supplied with the ACR, and the base supplied with the output signal from the DSP.

5. As allowable subject matter has been indicated, applicant's response must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 C.F.R. § 1.111(b) and section 707.07(a) of the M.P.E.P.

### *Conclusion*

Any inquiry from other than the applicant/attorney of record concerning this communication or earlier communications from the Examiner should be directed to the Patent Electronic Business Center (EBC) at 1.866.217.9197. Any inquiry from a member of the press concerning this communication or earlier communications from the Examiner or the application should be directed to the Office of Public Affairs at 703.305.8341. Any inquiry from the applicant or an attorney of record concerning this communication or earlier communications from the Examiner should be directed to Examiner Riley whose telephone number is 571.272.2083. The Examiner can normally be reached Monday through Thursday from 7:30-6:00 p.m. Eastern Standard Time. The Examiner's Supervisor is Mike Sherry who can be reached at 571.272.2084. Any inquiry about a case's location, retrieval of a case, or receipt of an amendment into a case or information regarding sent correspondence to a case **should be directed to 2800's Customer Service Center** at 571.272.2815. Any papers to be sent by fax MUST BE sent to fax number 703.872.9306. Any inquiry of a general nature of this application should be **directed to the Group receptionist** whose telephone number is 571.272.2800. Status information of cases may be found at <http://pair-direct.uspto.gov> wherein unpublished application information is found through private PAIR and published application information is found through public PAIR. Further help on using the PAIR system is available at 1.866.217.9197 (Electronic Business Center).

March 05

  
**Shawn Riley**  
**Primary Examiner**